



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,143	09/11/2003	Steven W. Githens	ROC920030276US1	4972

46797 7590 09/25/2007  
IBM CORPORATION, INTELLECTUAL PROPERTY LAW  
DEPT 917, BLDG. 006-1  
3605 HIGHWAY 52 NORTH  
ROCHESTER, MN 55901-7829

EXAMINER
----------

NUNEZ, JORDANY

ART UNIT	PAPER NUMBER
----------	--------------

2179

MAIL DATE	DELIVERY MODE
-----------	---------------

09/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*mn*

<b>Office Action Summary</b>	<b>Application No.</b> 10/660,143	<b>Applicant(s)</b> GITHENS ET AL.	
	<b>Examiner</b> Jordany Núñez	<b>Art Unit</b> 2179	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07/03/2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 7-25 and 28-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7-25 and 28-47 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 7, 8, 11-16, 19-25, 28, 29, 32-37, 40-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Cox et al. (US20020156806, Cox).

As to claim 1, 2, 11, 19-21, Cox shows:

A computer implemented method of generating a graphical representation of data, comprising:  
receiving abstract attributes values comprising at least a selection of a requested graphical representation type for a selected data set (page 7, paragraph [0065], lines );

providing and selecting an abstract data structure template (e.g., BarChart view object) from a plurality of abstract data structure templates, each being specific to a different graphical representation type and defining a plurality of template attributes for generically representing an abstract graphical representation in the respective different graphical representation type, wherein the selected abstract data structure template is specific to the selected graphical representation type (page 7, paragraph [0072], lines 19-23);

generating, on the basis of the received abstract attributes values and the selected abstract data structure template, an abstract data structure defining a plurality of abstract attributes abstractly representing the data set in the graphical representation (figure 5, element 510, and corresponding text);

Art Unit: 2179

retrieving and providing transformation rules for transforming the abstract data structure into a concrete data structure, the transformation rules comprising a plurality of subsets of transformation rules each subset describing graphical attributes of a requested graphical representation type and being specific to a different graphics rendering language, whereby the transformation rules support a plurality of graphical representation types and a plurality of graphics rendering languages (page 5, paragraph [0044], lines 12-23);

selecting a subset of the plurality of subsets of transformation rules in accordance with a requested, graphical representation type (page 5, paragraph [0044], lines 12-23); an

selecting transformation rules (e.g., interaction desired programmed by author) for (Examiner reads the following as not positively recited) transforming the abstract data structure into a concrete data structure from a plurality of transformation rules, the transformation rules describing graphical attributes of the requested graphical representation type (page 5, paragraph [0044], lines 12-23);

and generating, on the basis of the abstract data structure and the selected subset of transformation, a concrete data structure defining a concrete graphical representation in a graphics rendering language using the transformation rules; wherein generating the concrete data structure is done by operation of a computer processor (figure 8, and corresponding description); and

transforming the abstract data structure into a plurality of concrete data structures, each concrete data structure corresponding to a different graphics rendering language; wherein transforming the abstract data structure is done by operation of a computer processor (page 8, paragraph [0080], lines 6-19).

As to claim 3, 13, Cox shows:

The method of claim 2, wherein the requested graphical representation type is one of a bar chart, a line chart, a pie chart, a scatter plot and a combination thereof (figure 8, and corresponding description).

As to claim 4, 14, Cox shows:

Art Unit: 2179

The method of claim 2, wherein the plurality of abstract data structure templates is associated with a particular data source of the data (page 7, paragraph [0059]).

As to claim 7, Cox shows:

The method of claim 1, wherein the requested graphical representation type is one of a bar chart, a line chart, a pie chart, a scatter plot and a combination thereof (page 8, paragraph [0079], lines 8-12).

As to claim 8, 16, Cox shows:

The method of claim 1, wherein at least one of the abstract data structure and the concrete data structure is defined in Extensible Markup Language (XML) (page 4, paragraph [0036], lines 4-7, page 10, paragraph [0102], lines 1-8).

As to claim 15, Cox shows:

The method of claim 11, wherein generating the concrete data structure using the transformation rules comprises:

selecting a subset of the transformation rules in accordance with the requested graphical representation type (page 5, paragraph [0044], lines 12-23);

and generating the concrete data structure using the subset of the transformation rules (page 8, paragraph [0080], lines 6-19).

As to claim 12, Cox shows:

The method of claim 11, further comprising:

rendering the data set, as described in the graphics rendering language (e.g., java applets), in a graphic (figure 8, and corresponding description).

Art Unit: 2179

Claims 22-25, 28, 29, 32-37, 40-47 are rejected using the same line of reasoning used for the rejection of claim 1-8, 11-16, 19-21.

References to specific columns, figures or lines should not be limiting in any way. The entire reference provides disclosure related to the claimed invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9, 10, 17, 18, 30, 31, 38, 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cox.

As to Claims 9, 10, 17, 18, 30, 31, 38, 39:

Cox shows a method substantially as claimed, as specified above.

Art Unit: 2179

Cox further shows: using java applets (page 3, paragraph [0023], lines 1-7), and it being apparent to those skilled in the art that various changes and modifications can be made which will achieve some of the advantages of the invention without departing from the spirit and scope of the invention and that other components performing the same functions may be suitably substituted (page 10, paragraph [0102], lines 1-8).

Cox fails to specifically show: the concrete data structure is defined in a vector-based graphics language, the vector-based graphics language is one of Vector Markup Language (VML), Scalable Vector Graphics (SVG), and Hypertext Markup Language (HTML) Image Maps.

It would have been obvious to one of ordinary skill in the art, having the teachings of Cox at the time that the invention was made, to have replaced the java applets of Cox with the at least vector-based graphics language being one of Vector Markup Language (VML), Scalable Vector Graphics (SVG), and Hypertext Markup Language (HTML) Image Maps.

One would have been motivated to make such combination because features like scripting being done on XHTML and SVG elements simultaneously within the same Web page would have been obtained and desired.

References to specific columns, figures or lines should not be limiting in any way. The entire reference provides disclosure related to the claimed invention.

### ***Response to Arguments***

#### **35 U.S.C. § 102 and 103 Rejection of claims 1-4, 7-25, 28-47**

Applicant's arguments have been fully considered but are not persuasive. Examiner reiterates that references to specific columns, figures or lines should not be limiting in any way. The entire reference provides disclosure related to the claimed invention. Applicant argues that:

1) Examiner argues that Cox discloses selecting transformation rules for transforming an abstract data structure into a concrete data structure at Cox page 5, paragraph 44. However, the cited passage is

Art Unit: 2179

in fact directed to allowing an author to control the ways in which a reader can manipulate a live document. In the cited section, Cox is disclosing a method where the author can choose "actions" that a reader of a live document may want to employ in order to manipulate a visualization, thus enabling the reader to better analyze the data being displayed. This method is only concerned with giving the author the ability to control what manipulations the reader can employ on a given visualization and is not providing or selecting transformation rules that transform an abstract data structure into a concrete data structure. The operations involved only enable or disable certain functions or limit what data the reader can manipulate. They are not involving the process of transforming an object from one form to another. Thus, at the cited section, there is no transformation process and thereby no need for transformation rules as disclosed in the present Application (page 18, paragraph starting with "In this case [...]" and following paragraph).

Examiner disagrees.

As to 1), as pointed out by Applicant, "Cox is disclosing a method where the author can choose 'actions' that a reader of a live document may want to employ in order to manipulate a visualization, thus enabling the reader to better analyze the data being displayed." Examiner reads the raw data being analyzed as the abstract data structure, and the implementation of the visualization (not the actual display of the visualization) as the concrete data structure. Because a user chooses actions that eventually result in a different visualization of the same raw data, Cox in fact teaches "transforming an abstract data structure into a concrete data structure."

2) The Examiner argues that Cox discloses, at Figure 8 and corresponding description, generating, on the basis of the abstract data structure, a concrete data structure defining a concrete graphical representation in a graphics rendering language using the transformation rules. However, the cited section is in fact directed to describing a live document that a reader would view and ways a reader could manipulate the document. The cited section does not disclose any information about using a transformation rule to generate a concrete data structure based on an abstract data structure.

Additionally, as described above, in the sections the Examiner pointed to, Cox does not disclose the



Art Unit: 2179

selecting or providing of transformation rules that could be used for this generation process (Page 19, paragraph starting with "Similarly, Cox fails [...]").

Examiner disagrees.

As to 2), as explained above, a user chooses different 'actions' that manipulate a visualization of a set of data. Examiner reads these 'actions' as the transformation rules to be used in order to transform a set of data (e.g., the abstract data structure) into an implementation of a visualization (e.g., the concrete data structure).

3) Examiner cites Cox at page 7, paragraph 72 as disclosing the selecting of an abstract data structure template. That cited section discloses a method where the result is an applet which displays a graphical representation. There is no disclosure of a plurality of graphical representations being displayed from one abstract data structure. Moreover, there is no disclosure of concrete data structures corresponding to different graphics rendering languages (Page 20, paragraph starting with "Cox does not [...]").

Examiner disagrees.

As to 3), this citation teaches an abstract data structure (e.g., @src:=Get Datasource), and said applet using said abstract data structure to display a plurality of graphical representations (figure 7, element 716). Further this citation of Cox teaches Applets and HTML, both of which are graphics rendering languages.

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

Art Unit: 2179

shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Dettinger et al. [U.S. 7085757]

Lennon et al. [U.S. 20040015783]

Vedula et al. [U.S. 6823495]

Miyadi [U.S. 7009609]

Chen et al. [U.S. 6668354]

Makita [U.S. 5611034]

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordany Núñez whose telephone number is (571)272-2753. The examiner can normally be reached on Monday Through Thursday 9am-7:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo can be reached on (571)272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JN  
9/10/2007



**WEILUN LO**  
SUPERVISORY PATENT EXAMINER